# Deploying OpenManage Integration for Microsoft Endpoint Configuration Manager and Virtual Machine Manager (OMIMSSC)

### Abstract

This technical white paper describes setup and configuration of OpenManage Integration for Microsoft Endpoint Configuration Manager and Virtual Machine Manager on Microsoft Hyper-V. It is intended for those individuals who are looking for step by step process on setup and configuration of OMIMSSC.

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Dell EMC OpenManage Integration with Microsoft System Center for Virtual Machine Manager and Configuration Manager

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### **Revisions**

| Date      | Description                      |
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### **Executive Summary**

OpenManage Integration for Microsoft System Center (OMIMSSC) is an appliance-based integration for System Center suite of products. OMIMSSC enables full lifecycle management of Dell EMC PowerEdge servers by using integrated Dell Remote Access Controller (iDRAC) with Lifecycle Controller (LC).

#### OMIMSSC offers

- o Operating system deployment
- o Storage Spaces Direct cluster creation
- o Hardware configuration
- o Firmware update
- o Maintenance of servers and modular systems
- o Cluster aware firmware update

OpenManage Integration for Microsoft Endpoint Configuration Manager (MECM) and Microsoft System Center Virtual Machine Manager (SCVMM) comes in '.vhd' format. It is deployed in Microsoft Hyper-V with recommended resources (minimum of 8GB Memory and 4 Virtual Processors).

## **OMIMSSC architecture**



Figure 1: OMIMSSC Architecture

### **Download from WEB**

To download OMIMSSC, from https://www.dell.com/support perform the following steps:

- Click Browse all products > Software > Enterprise Systems Management > OpenManage Integration for Microsoft System.
- 2. Select the required version of OMIMSSC.
- 3. Click Drivers & downloads tab.
- 4. Download OMIMSSC .vhd file.

### System requirements of OMIMSSC

After downloading OMIMSSC compressed file, extract the .vhd file and then set-up OMIMSSC Appliance. Ensure that the following requirements are met on the Hyper-V where the OMIMSSC Appliance is set up:

### Supported Windows operating system

- ✓ Windows Server 2019
- ✓ Windows Server 2016
- ✓ Windows Server 2012 R2

### **OMIMSSC** admin portal

Install any of the following supported browsers:

- ✓ Internet Explorer 10 or later
- ✓ Mozilla Firefox 30 or later
- ✓ Google Chrome 23 or later
- ✓ Microsoft Edge

### Account privileges

All the required account privileges to use OMIMSSC are as follows:

Account privileges for OMIMSSC console extension for SC Console is that the user is a member of the following groups in SC Console:

| Users                                | Privileges/Roles   |
|--------------------------------------|--|
| For enrollment                       | <ul> <li>Account used to enroll the MECM console with OMIMSSC should be a full admin or an administrator in MECM.</li> <li>Account used to enroll the SCVMM console with OMIMSSC should be a member of administrator role in SCVMM.</li> <li>Domain user.</li> <li>Member of Local Administrator group in system center machine.</li> </ul>        |
| For logging in to console extensions | <ul> <li>Account used to enroll the MECM console with OMIMSSC should be a full admin or an administrator in MECM.</li> <li>Account used to enroll the SCVMM console with OMIMSSC should be a delegated admin or an administrator in SCVMM.</li> <li>Domain user.</li> <li>Member of Local Administrator group in system center machine.</li> </ul> |

Table 1: User accounts with required privileges

### Abstract view of OMIMSSC deployment on Hyper-V

There are four steps which summarize the installation of OMIMSSC appliance. Follow the recommended sequence for successful deployment.



Figure 2: Abstract view of OMIMSSC deployment on Hyper-V

### 1. Import VM & Configure Memory

a. Import the downloaded OMIMSSC VHD in your Hyper-V Windows operating system.

In your **Hyper-V Manager** tool, create a **New Virtual Machine** by pointing to this downloaded OMIMSSC VHD.



Figure 3: New Virtual Machine

- b. The New Virtual Machine Wizard is displayed. In Before You Begin page, click Next.
- c. In Specify Name and Location tab, provide a Name for the virtual machine. If you want to store the VM in a different location, then select Store the virtual machine in a different location, click Browse..., and traverse to the new location.



Figure 4: Specify Name and Location

d. In Specify Generation tab, select Generation 1, and click Next.

| 📃 New Virtual Machine Wizar  | b b  |
|--|--|
| Specify Gene   | eration  |
| Before You Begin<br>Specify Name and Location  | Choose the generation of this virtual machine.   |
| Specify Generation   | Ceretaturi 1<br>This virtual machine generation supports 32-bit and 64-bit guest operating systems and provides<br>virtual hardware which has been available in all previous versions of Hyper-V.  |
| Configure Networking<br>Connect Virtual Hard Disk<br>Installation Options<br>Summary | <ul> <li>Generation 2</li> <li>This virtual machine generation provides support for newer virtualization features, has UEFI-based firmware, and requires a supported 64-bit guest operating system.</li> <li>Once a virtual machine has been created, you cannot change its generation.</li> </ul> |



e. In Assign Memory tab, assign the memory capacity that is mentioned in the prerequisite and click Next.

| 🖳 New Virtual Machine Wizar  | d  | × |
|--|--|---|
| 💻 🛛 Assign Mem   | pry  |   |
| Before You Begin<br>Specify Name and Location<br>Specify Generation<br>Assign Memory<br>Configure Networking<br>Connect Virtual Hard Disk<br>Installation Options<br>Summary | Specify the amount of memory to allocate to this virtual machine. You can specify an amount from 32 MB through 12582912 MB. To improve performance, specify more than the minimum amount recommended for the operating system.<br>Startup memory: 8192 MB Use Dynamic Memory for this virtual machine. When you decide how much memory to assign to a virtual machine, consider how you intend to use the virtual machine and the operating system that it will run. |   |

#### Figure 6: Assign Memory

Allocate memory for OMIMSSC Appliance VM based on number of Microsoft consoles you plan to enroll. The recommendations are:

| Components                                    | Per MECM or SCVMM console | N MECM or SCVMM consoles |  |  |
|---|---------------------------|--------------------------|--|--|
| Memory  | 8 GB                      | 8 GB * N                 |  |  |
| Table 2 : Assign Memory for OMIMSSC Appliance |                           |                          |  |  |

NOTE: It is recommended to leave the Use Dynamic Memory for this virtual machine disabled.

f. In **Configure Networking** tab, from the **Connection** drop-down menu, select the network that you want to use, and click **Next**.

| New Virtual Machine Wizard   | ſ  | ×  |
|--|--|--|
| Configure Ne   | tworking                                       |  |
| Before You Begin<br>Specify Name and Location<br>Specify Generation<br>Assign Memory | Each new viri<br>virtual switch<br>Connection: | ual machine includes a network adapter. You can configure the network adapter to use a<br>, or it can remain disconnected. |
| Configure Networking<br>Connect Virtual Hard Disk<br>Installation Options<br>Summary |  | Broadcom NetXtreme Gigabit Ethernet #2 - Virtual Switch<br>Broadcom NetXtreme Gigabit Ethernet - Virtual Switch            |

Figure7: Configure Networking

**NOTE**: Ensure that all necessary subnets and gateway are routable to the interface given to the OMIMSSC. **NOTE**: A single network adapter is officially supported by the OMIMSSC

g. In Connect Virtual Hard Disk tab, select Use an existing virtual hard disk, traverse to the location where the OMIMSSC VHD file is present and select the file and click Next.

| efore You Begin<br>Specify Name and Location<br>Specify Generation | A virtual machine requires storage so that you can install an operating system. You can specify the storage now or configure it later by modifying the virtual machine's properties.  Create a virtual hard disk Use this option to create a VHDX dynamically expanding virtual hard disk. |
|--|--|
| Assign Memory<br>Configure Networking                              | Name: OMIMSSC_7.2.1.vhdx   |
| Summary  | Location:         C:\Users\Public\Documents\Hyper-V\Virtual hard disks\         Browse           Size:         127         GB (Maximum: 64 TB)   |
|  | Use an existing virtual hard disk<br>Use this option to attach an existing virtual hard disk, either VHD or VHDX format.   |
|  | Location: C:\HyperV\OMIMSSC_v7.2.1.2610_for_VMM_and_ConfigMgr_A001 Browse  |

Figure 8: Connect Virtual Hard Disk

h. In Summary tab, confirm the details that you have provided and click Finish.

### 2. Configure Virtual Processors

In the newly created Virtual Machine, make sure to update the number of virtual processors count value to 4 (or higher), since by default the processor count is set to 1.

a) Right click on OMIMSSC appliance and select **Settings**.

| Hyper-V Manager | Virtual Machines |       |                        |                          |        |                                    |   |
|-----------------|------------------|-------|------------------------|--------------------------|--------|------------------------------------|---|
|                 | Name             | State | CPU Usage              | Assigned Memory          | Uptime | Status                             | ^ |
|                 | OMIMSSC_7.2.1    | Off   |                        |                          |        | Connect                            |   |
|                 |                  |       |                        |                          |        | Settings                           |   |
|                 |                  |       |                        |                          |        | Start                              |   |
|                 |                  |       |                        |                          |        | Checkpoint                         |   |
|                 | Checkpoints      |       | The selected virtual r | machine has no checkpoir | nts.   | Move<br>Export<br>Rename<br>Delete |   |
|                 |                  |       |                        |                          |        | Enable Replication                 |   |
|                 | OMIMSSC_7.2.1    |       |                        |                          |        | , icip                             |   |

Figure 9: Settings

- b) In the left panel of Settings page, select Processor, and set Number of virtual processors to 4.
- c) Click Apply and click OK.



| MIMSSC_7.2.1   | ✓ ◀ ► Ŭ  |
|--|--|
| Hardware<br>Add Hardware<br>BIOS<br>Boot from CD<br>Security<br>Key Storage Drive disabled<br>Memory | Processor     You can modify the number of virtual processors based on the number of processors or     the physical computer. You can also modify other resource control settings.     Number of virtual processors:     4      Resource control |
| Processor<br>4 Virtual processors  | Virtual machine reserve (percentage):  |
| <ul> <li>IDE Controller 0</li> <li>Hard Drive</li> <li>OMIMSSC_v7.2.1_for_VM.</li> </ul>             | Percent of total system resources: 0 Virtual machine limit (percentage): 100   |
| IDE Controller 1   | Percent of total system resources: 16  |

Figure 10: Number of virtual processors

Allocate processor for OMIMSSC Appliance VM based on number of Microsoft consoles you plan to enroll. The recommendations are:

| Components        | Per MECM or SCVMM console | N MECM or SCVMM consoles |  |  |
|-------------------|---------------------------|--------------------------|--|--|
| Virtual Processor | 4                         | 4 * N                    |  |  |

Table 3: Allocate processor for OMIMSSC Appliance

### 3. Start VM & Configure Hostname

Once you have configured the required processor count for this newly created Virtual Machine, Start the OMIMSSC Appliance VM and perform the following tasks:

a. Right click the OMIMSSC appliance and select Start

| Hyper-V Manager       |                  |       |           |                 |           |        |   |
|-----------------------|------------------|-------|-----------|-----------------|-----------|--------|---|
| File Action View Help |                  |       |           |                 |           |        |   |
| 🗢 🔿 🙍 🖬 👔 🖬           |                  |       |           |                 |           |        |   |
| Hyper-V Manager       | Virtual Machines |       |           |                 |           |        |   |
|                       | Name             | State | CPU Usage | Assigned Memory | Uptime    | Status | ^ |
|                       | MIMSSC_7.2.1     | Off   |           | C               | Connect   |        |   |
|                       |                  |       |           | S               | ettings   |        |   |
|                       |                  |       |           | S               | tart      |        |   |
|                       |                  |       |           |                 | heckpoint |        | ~ |
|                       |                  |       |           | N               | love      |        | , |

Figure 11: Start the OMIMSSC Appliance VM

b. Connect to the OMIMSSC appliance

| Hyper-V Manager       |                  |         |                      |                  |           |        |   |
|-----------------------|------------------|---------|----------------------|------------------|-----------|--------|---|
| File Action View Help |                  |         |                      |                  |           |        |   |
| 🗢 🔿 🙍 🖬               |                  |         |                      |                  |           |        |   |
| Hyper-V Manager       | Virtual Machines |         |                      |                  |           |        |   |
|                       | Name             | State   | CPU Usage            | Assigned Memory  | Uptime    | Status | ^ |
|                       | MIMSSC_7.2.1     | Running | 1%                   | 8192 MB          | Connect   |        |   |
|                       |                  |         |                      |                  | Settings  |        | _ |
|                       |                  |         |                      |                  | Turn Off  |        |   |
|                       |                  |         |                      |                  | Shut Down |        | ~ |
|                       | <                |         |                      |                  | Save      |        | > |
|                       | Checkpoints      |         |                      |                  | Pause     |        | ۲ |
|                       |                  |         | The selected virtual | machine has no c | Reset     |        |   |

Figure 12: Connect to OMIMSSC appliance

c. In the Terminal User Interface (TUI), Select OMIMSSC\_<version>\_for\_VMM\_and\_ConfigMgr

|     | OMIMSSC_v7.2.1_for_VMM_and_Conf igMgr                             |
|-----|---|
|     | Advanced options for OMIMSSC_v7.2.1_for_VMM_and_ConfigMgr         |
|     |   |
|     |   |
|     |   |
|     |   |
|     |   |
|     |   |
|     |   |
|     |   |
|     |   |
|     |   |
|     |   |
|     |   |
|     |   |
|     | lise the 1 and 1 keys to change the selection                     |
|     | Press 'e' to edit the selected item, or 'c' for a command prompt. |
| The | selected entry will be started automatically in 6s.               |
|     |   |
|     |   |

Figure 13: OMIMSSC\_<version>\_for\_VMM\_and\_ConfigMgr

**d.** As appliance starts and required services occur in the background, it's recommended to wait for few minutes for all the services to initiate.

#### Troubleshoot: Services have not initiated

As a workaround, reboot the system and wait for few minutes for all the services to initiate.

e. To configure your appliance, you need to set your password. Provide the login name as admin

MIIMSSC\_7.2.1 on WINDOWS-9A97HHU - Virtual Machine Connection
 File Action Media Clipboard View Help
 Contended View Help

#### Figure 14: Set your password

f. Provide new password. Password should have combination of eight characters minimum, which should include a number, a symbol, and both upper and lower-case alphabets.

| 8 characters minimum, a number, a symb                          | ol, and both | ı capital and | lower-case | lettering ar | e required. |
|---|--------------|---------------|------------|--------------|-------------|
| Enter new Admin password:<br>Please confirm new Admin password: |              |               |            |              |             |
| · · ·   |              |               |            |              |             |

Figure 15: Provide new password

- g. Press <Enter> to Continue.
- h. You will get the OpenManage Integration for Microsoft System Center (OMIMSSC) Appliance window.

By default, OMIMSSC Appliance assigns to a DHCP IP and hostname as localhost.

#### Troubleshoot: IP address not assigned to OMIMSSC Appliance viz. https://<Not Available>

After starting the OMIMSSC Appliance VM, the OMIMSSC Appliance IP address is not assigned or displayed. As a workaround, check if the virtual switch is mapped to a physical switch, if the switch is configured correctly, and then connect to OMIMSSC Appliance.



Figure16: Configure Network

i. **Configure Network:** In the options listed, select **Configure Network**, press <Enter>, and perform the following sub steps.

In NetworkManager TUI, select Set hostname provide the Appliance name and click OK.

For example, Hostname.domain.com

- o Make sure OMIMSSC Appliance and SC console should be in the same domain
- This IP address must be mapped to the user provided FQDN in DNS (Domain Name Server) of the customers' environment.

| NetworkManager TUI<br>Please select an option<br>Set Hostname<br>Hostname omimssc.mydomain.com<br>(Cancel) (OK) |
|---|
|   |

#### Figure 17: Set system hostname

**NOTE**: You can change the IP address of Appliance by selecting **Configure Network** option. You cannot change the IP address or host name of Appliance after this point.

If you want to configure static IP address,

- select Edit a connection and select Ethernet0.
- Select IPv4 CONFIGURATION, select Manual, and click Show.
- o Provide the IP configuration address, gateway address, DNS server IP, and click OK.
- j. Once hostname is set you can see hostname in the main window

| OpenManage Integration for Microsoft System Center (OMIMSSC) Appliance  |
|---|
| Use your browser to open any one of the URLs for OMIMSSC<br>Admin Portal to complete the Setup and Configuration          |
| https://omimssc.mydomain.com<br>https://  |
| Configure Network<br>Change Admin Password<br>Reboot this Virtual Appliance<br>Configure Enrollment Parameters<br>Log out |
| Use arrow keys to navigate<br><enter> to select</enter>   |
| *For more information see User's Guide  |

Figure 18: Configured hostname in main window

**k.** Add the OMIMSSC Appliance IP and FQDN in Forward Lookup Zones and Reverse Lookup Zones in DNS manually.

Your appliance is now configured. You can launch the admin portal from your client device by providing the above highlighted URL.

### 4. Enrollment with Microsoft System Center

You can enroll Microsoft System Center console with OMIMSSC appliance using admin portal. Admin portal is the place where user can register different MECM and SCVMM console with same OMIMSSC Appliance.

#### a. Enrolling multiple Microsoft consoles

You can manage OMIMSSC Appliance resources when multiple Microsoft consoles are enrolled with OMIMSSC.

Based on number of Microsoft consoles you plan to enroll with OMIMSSC Appliance, ensure that the hardware requirements are met.

To configure resources for multiple Microsoft consoles, perform the following steps:

- 1. Launch and login to OMIMSSC Appliance.
- 2. Navigate to Configure Enrollment Parameters and click Enter.
- 3. Provide the number of consoles you plan to enroll with OMIMSSC Appliance.

The required resources are listed.

#### b. Access Admin portal

On your MECM or SCVMM installed system, launch a browser with your OMIMSSC appliance URL. Log in to the OMIMSSC admin portal by providing password which is set while configuring OMIMSSC appliance. URL Format: https://clP address or FQDN> e.g. https://omimssc.mydomain.com

Add OMIMSSC admin portal's URL in Local Intranet Site by performing the following steps:

- Click IE Settings, and click Internet Options.
- Click Advanced, and under Settings, search for the Security section.
- Clear **Do not save encrypted pages to disk** option and click **OK**.

| Kerren in the second se |                                 |
|--|---------------------------------|
|  | User Name admin Password Log In |

Figure 19: Admin portal

#### Troubleshoot: Error message while accessing OMIMSSC admin portal through Mozilla Firefox browser

When accessing the OMIMSSC admin portal by using Mozilla Firefox browser, following warning message is displayed: 'Failed'.

As a workaround, delete the certificate created from a previous entry of the admin portal in the browser. For information about deleting certificate from Mozilla Firefox browser, see *support.mozilla.org* 

#### Troubleshoot: Failure to display Dell EMC logo in OMIMSSC admin portal

When the OMIMSSC admin portal is launched on a Windows 2016 default IE browser, the admin portal is not displayed with the Dell EMC logo.

As a workaround, perform one of the following:

- Upgrade IE browser to the latest version.
- Delete the browsing history, and then add the OMIMSSC admin portal URL to browser's favorite list.

#### c. Enroll MECM with OMIMSSC appliance

To enroll MECM console with OMIMSSC Appliance, first download the console extension for MECM from admin portal and install on the MECM site server.

#### i. Download the MECM console extension

Once you are logged into OMIMSSC admin, you need to install the OMIMSSC console extension to have connectivity between OMIMSSC Appliance and MECM system.

Click Downloads and Click Download Installer to download the console extension.

| D&LLEMC OpenManage Integr  | ration for Microsoft System Center - Admin Portal 💦 🕹 Admin 🕞 Logout 🚯 About                       |  |
|--|--|--|
| Appliance Details  | Downloads  |  |
| 💄 User Management  | Download the required software.  |  |
| 🛃 Downloads  | OMIMSSC console extension for SCVMM Installer  |  |
| License Center   | Download and install console extension for SCVMM on the system where SCVMM console is installed.   |  |
| 🕨 🏟 Settings   | ♣ Download Installer   |  |
| $\begin{bmatrix} \overline{a}\\ \overline{a} \end{bmatrix}$ Jobs and Logs Center |  |  |
|  | OMIMSSC console extension for SCCM Installer   |  |
|  | Download and install the console extension for SCCM on the system where SCCM console is installed. |  |
|  | 📩 Download Installer   |  |

Figure 20: Download Installer

#### ii. Installation of OMIMSSC console extension for MECM on the MECM Site Server

#### a) System requirements of OMIMSSC console extension for MECM

- 1. Install the same versions of MECM admin console and MECM site server.
- 2. Complete the following prerequisites on the site server, and SMS provider server before installing OMIMSSC component:
  - a. In PowerShell, run the command: *PSRemoting*. If the *PSRemoting* command is disabled, enable the *PSRemoting* using the below commands.
    - Run the command: Enable-PSRemoting
    - In the confirmation message, **type Y**.

b. In PowerShell, run the command: Get-ExecutionPolicy.

- If the policy is not set to **RemoteSigned**, then set it to **RemoteSigned** using the following commands.
  - Run the command: **Set-ExecutionPolicy RemoteSigned**.
    - In the confirmation message, **type Y**.

#### b) Installing OMIMSSC console extension for MECM

- Ensure that you install the OMIMSSC console extension on the MECM site server before using it in the MECM admin console. It is recommended that you close Microsoft Endpoint Configuration Manager before installing, upgrading, or uninstalling the OMIMSSC console extension.
- Double-click on the downloaded **OMIMSSC\_MECM\_Console\_Extension.exe** and then click **Next**.
- On the **License Agreement** page, ensure to read through the all licensed agreement and follow the installation wizard.
- On the **Ready to Install the Program** page, click **Install**.

o In Installation Completed Successfully page, click Finish.

A **Log** folder will be created after installing the console extension. It consists of console-related log information.

#### c) Verifying permissions for using OMIMSSC console extension for MECM

After installing OMIMSSC Appliance, verify that the enrolled user has the following permissions:

- 1. On the system where OMIMSSC is installed, provide the Write permissions for the <Configuration Manager Admin Console Install Dir>\XmlStorage\Extensions\DLCPlugin folder using PowerShell commands.
- Configure user access to Windows Management Instrumentation (WMI).
   To configure user access to WMI remotely:
   NOTE: Make sure that firewall of the system does not block the WMI connection.
  - I. To access the Distributed Component Object Model (DCOM) remotely, provide permissions to the
    - enrolled MECM user. To grant user permissions for DCOM:
    - a. Launch dcomcnfg.exe.
    - b. From the left pane, in the Component Services console, expand Computers, right-click My Computer and select Properties.
    - c. On COM Security:
      - From Access Permissions, click Edit Limits and select Remote Access.
      - From Launch and Activation Permission, click Edit Limits and select Local Launch, Remote Launch, and Remote Activation.
  - II. To access the DCOM Config Windows Management and Instrumentation (WMI) components, provide user permissions to the enrolled user. To grant user permissions for DCOM Config WMI:
    - a. Launch dcomcnfg.exe.
    - b. Expand My Computer > DCOM Config.
    - c. Right-click Windows Management and Instrumentation and select Properties.
    - d. On Security, from Launch and Activation Permission, click Edit and select the Remote Launch and Remote Activation permissions.
  - III. Set the namespace security and grant permissions. To set namespace security and grant permissions:
    - a. Launch wmimgmt.msc
    - b. In WMI Control pane, right-click WMI Control, select Properties, and then select Security.
    - c. Navigate to ROOT\SMS Namespace.
    - d. Select the **Execute Methods**, Provider Write, Enable Account, and the Remote Enable permissions.
    - e. Navigate to Root\cimv2\OMIMSSC.
    - f. Select the **Execute Methods**, Provide Write, Enable Account, and the Remote Enable permissions.

Alternatively, the Configuration Manager user becomes a member of the SMS\_Admin group, and you can grant Remote Enable to the existing permissions of the group.

- IV. Provide share and folder permissions to write files to the inboxes folder.
  - To grant share and folder permissions to write files to the DDR inbox:
    - a. From the Configuration Manager console, under Administration, grant the user permission to write to the SMS\_<sitecode> share.
    - b. Using File Explorer, go to the share location SMS\_<sitecode> share, and then to the ddm.box folder. Grant full control to the domain user for the following folders:
      - SMS\_<sitecode>
      - Inboxes
      - ddm.box

#### iii. Perform the MECM console enrollment

Console Enrollment is the mode to establish communication between OMIMSSC appliance and SC console. Enroll the MECM site server to use OMIMSSC console extension on OMIMSSC admin portal.



Enrollment is common for both MECM and SCVMM consoles. To do so, perform the following operations on OMIMSSC Admin portal.

- Launch the OMIMSSC admin portal and login.
- o Click Settings, click Console Enrollment

| €⊜           | https://ominssc.mydomain.com/diciadminportal/index.htmi#/applianceManagement.details 🔎 👻 Certificate error 🖒 | Den Manage Integration f × |         |          | -<br>6  | <b>미 &gt;</b><br>상☆ 🔅 |
|--------------|--|----------------------------|---------|----------|---------|-----------------------|
| DØLLE        | MC OpenManage Integration for Microsoft System Center - Admin  | Portal                     | 🐣 Admin | 🕞 Logout | i About | 😮 Help                |
| •            | Appliance Details  |                            |         |          |         |                       |
| *<br>*       | OMIMSSC Appliance virtual machine details  |                            |         |          |         |                       |
| 0            | Displays Appliance information   |                            |         |          |         |                       |
| ►Q -         | Appliance Hostname   | omimssc.mydomain.com       |         |          |         |                       |
| ±            | Appliance IP Address   |                            |         |          |         |                       |
| Ľ            |  |                            |         |          |         |                       |
| Console Enro | liment   |                            |         |          |         |                       |
|              |  |                            |         |          |         |                       |
| 4            |  |                            |         |          |         |                       |
|              |  |                            |         |          |         |                       |

Figure 21: Console Enrollment

- Click Enroll.
- Provide Name, Description, and Console FQDN in Enroll a Console page.

NOTE: Provide fully qualified domain name (FQDN) of MECM site server in Console FQDN field.

- o Click Create New to create a Windows type credential profile to access MECM console.
  - Select the Credential Profile Type as Windows Credential Profile.
  - Provide Credential Profile Name and Credential Profile Description.
  - In Credentials, provide the Username and Password.
  - Provide the domain details in **Domain**.

| Console Enrollment         Enrollment         Credential Profile         Select Credential Profile Type           Displays the list of enrolle         Create the different types of credential profiles that and firmware update. Select the credential profile type         Select Credential Profile         Device Credential Profile           Profile         Profile         Free Credential Profile         Free Credential Profile | * |
|---|---|
| Displays the list of enrolle Re Create the different types of credential profiles that Per and firmware update. Select the credential profile ty Hundows Credential Profile FTP Credential Profile  |   |
| Pc and firmware update. Select the credential profile ty<br>FTP Credential Profile  |   |
| FTP Credential Profile  |   |
| Credential Profile Type Proxy Credential Profile  |   |
| Credential Profile Name WCP   |   |
| avail Credential Profile Description  |   |
| M<br>   |   |
| Username administrator  |   |
| Password •••••••  |   |
| Domain mydomain.com   |   |

Figure 22: Credential Profile Type

NOTE: Provide the domain name with Top Level Domain (TLD) details while creating the credential profile for console enrollment.

For example, if the domain name is **mydomain**, and the TLD is **com**, provide the domain name in credential profile as: **mydomain.com**.

 To verify the connections between OMIMSSC Appliance and Microsoft console, click Test Connection.

| DØLLE       | MC OpenManage In             | tegration for Microsoft System Center - Admir   | n Portal 🔒 🔒   | min |
|-------------|------------------------------|---|--|-----|
| •           | Console Enrollment           | Enroll a Console  |  | ×   |
| •<br>•<br>• | Displays the list of enrolle | Register the MSSC console with the Appliance to configure<br>PowerEdge devices.<br>Name | hardware, deploy operating system, and manage Dell EMC | ]   |
| ±.          | There are no items availa    | Description   |  |     |
|             |                              | MSSC Console Details  |  |     |
|             |                              | Console FQDN  | scconsolefqdn.mydomain.com                             |     |
|             |                              | Credentials   | WCP  | Ĩ   |
|             |                              |   | Select Credential<br>WCP                               |     |
|             |                              |   |  |     |
|             |                              |   |  |     |
|             |                              |   |  |     |
|             |                              |   | Test Connection Enroll Cance                           | L   |

Figure 23: Test Connection

 $\circ$  ~ To enroll the console after a successful test connection, click  $\mbox{Enroll}.$ 

|                | Console Enrollment                | Enroll a Console  | *   |
|----------------|-----------------------------------|---|---|
| <b>≗</b><br>.⊉ | Displays the list of enrolle      | i Test connection is successful   | ×   |
| ₩<br>L         | Name There are no items available | Register the MSSC console with the Appliance to configu<br>PowerEdge devices. | re hardware, deploy operating system, and manage Dell EMC |
| Ľ              |                                   | Name  | SCCONSOLE   |
|                |                                   | Description   |   |
|                |                                   | MSSC Console Details  |   |
|                |                                   | Console FQDN  | scconsolefqdn.mydomain.com                                |
|                |                                   | Credentials   | WCP 🗸   |
|                |                                   |   | Create New  |
|                |                                   |   | Test Connection Cancel                                    |



**NOTE**: Follow the same steps to enroll more than one SC console.

#### Troubleshoot: Enrollment failure

If the test connection or enrollment fails, then you get an error message.

As a workaround, perform the following steps:

Ping from OMIMSSC Appliance to enrolled MECM or SCVMM server FQDN by logging in to OMIMSSC Appliance VM as a read-only user. If there is a response, then wait for some time and then continue with the enrollment.

To launch the OMIMSSC Appliance VM as a read-only user, enter username as read-only with the same password used to log into the OMIMSSC Appliance VM.

• Ensure that the MECM or SCVMM server is running.

- The Microsoft account used to enroll the console should be a delegated admin or an administrator in System Center, and a local administrator for the System Center server.
- Specific for SCVMM users:

 Ensure that the SCVMM server is not registered with any other OMIMSSC Appliance. If you want to register the same SCVMM server with the OMIMSSC Appliance, then delete the OMIMSSC Registration Profile application profile from the SCVMM server.

 $\circ$  If you have applied SCVMM roll up update, then check the Indigo TCP port number of SCVMM console in registry

(HKEY\_LOCAL\_MACHINE\SOFTWARE\Microsoft\Microsoft System Center Virtual Machine Manager AdministratorConsole\Settings). Use the same port number that was used to register SCVMM console which by is 8100.

#### **Troubleshoot: Failure of test connection**

If usernames are same and the passwords are different for the domain user account and local user account, then the test connection between Microsoft console and OMIMSSC Appliance fails.

For example, domain user account is **domain\user1** and password is **pwd1**. And local user account is **user1** and password is **Pwd2**. When you try to enroll with the above domain user account, the test connection fails.

As a workaround, use different usernames for the domain user and local user accounts, or use a single user account as local user and during Microsoft console enrollment in OMIMSSC Appliance.

#### iv. Access OMIMSSC console in MECM

Launching the OMIMSSC MECM Console Extension in MECM console

In MECM console, click **Assets and Compliance**, click **Overview**, and then click the **OMIMSSC MECM Console Extension**.



Figure 25: Launch the OMIMSSC MECM Console Extension

• Provide the site server admin user credential.

| Home Search                   |   |
|-------------------------------|---|
| 😸 🔪                           |   |
| Create User Import            |   |
| Collection Collections        |   |
|                               |   |
| Assets and Complian           | ce > Overview > OMIMSSC SCCM Console Extension                    |
| Assets and Compliance 4       |   |
| Device Collections            |   |
| User State Migration          |   |
| Asset Intelligence            |   |
| Software Metering             |   |
| Endpoint Protection           |   |
| 4 All Corporate-owned Devices | UNIINISSC   |
| Predeclared Devices           |   |
| ios                           | © 2009 - 2020 Dell Inc, or its subsidiaries. All Rights Reserved. |
| Windows                       |   |
| MIMSSC SCCM Console Extension |   |
| -                             |   |
| Assets and Compliance         | Liese Neme underside disistents                                   |
| Software Library              | User Name mydomain/administrator                                  |
| Monitoring                    | Deserved  |
| Administration                | Password  |
|                               |   |
| Community                     | Log In  |
| •                             |   |

Figure 26: Provide admin user credential

#### Troubleshoot: Failed to login to OMIMSSC console extensions

After logging in to OMIMSSC console extensions with different credentials used to login to Microsoft console, the login activity fails with following error message: Username or Password is incorrect

As a workaround, login and launch Microsoft console with the credentials used to login to OMIMSSC console extension. This is a one-time activity.

#### d. Enroll SCVMM with OMIMSSC appliance

#### i. Download the console extension

Once you are logged into OMIMSSC admin, you need to install the OMIMSSC console extension to have connectivity between OMIMSSC Appliance and SCVMM system.

Click Downloads and Click the Download Installer to download the console extension

| DCLEMC OpenManage Integration for Microsoft System Center - Admin Portal |  |  |  |  |  |
|--|--|--|--|--|--|
| Appliance Details  | Downloads  |  |  |  |  |
| Luser Management   | Download the required software.  |  |  |  |  |
| L Downloads  | OMIMSSC console extension for SCVMM Installer  |  |  |  |  |
| License Center   | Download and install console extension for SCVMM on the system where SCVMM console is installed.   |  |  |  |  |
| Extrings   | 🕹 Download Installer   |  |  |  |  |
| 🖆 Jobs and Logs Center   |  |  |  |  |  |
|  | OMIMSSC console extension for SCCM Installer   |  |  |  |  |
|  | Download and install the console extension for SCCM on the system where SCCM console is installed.   |  |  |  |  |
|  | 🕹 Download Installer   |  |  |  |  |
|  | OMIMSSC console extension for SCCM Installer         Download and install the console extension for SCCM on the system where SCCM console is installed.         Lownload Installer |  |  |  |  |

Figure 27: Download Installer

- ii. Installation of OMIMSSC console extension for SCVMM on the SCVMM Server
  - a) System requirements of OMIMSSC console extension for SCVMM

To install OMIMSSC console extension for SCVMM:

- Install the same versions of SCVMM admin console and SCVMM server.
- Failover clustering feature is enabled on SCVMM server.
- Enrolled user should have administrative rights on SCVMM server.
- Enrolled user should have administrative rights on the managed cluster.

#### b) Verifying PowerShell permissions for using OMIMSSC console extension for SCVMM

Check if the PSRemoting status is enabled and **ExecutionPolicy** is set to **RemoteSigned**. If the status is different, then perform the following steps in PowerShell:

a. In PowerShell, run the command: **PSRemoting**.
 If the **PSRemoting** command is disabled, run enable the **PSRemoting** using the below commands.

- Run the command: Enable-PSRemoting
- In the confirmation message, type Y.
- In PowerShell, run the command: Get-ExecutionPolicy.
   If the policy is not set to RemoteSigned, then set it to RemoteSigned using the following commands.
  - Run the command: **Set-ExecutionPolicy RemoteSigned**.
  - In the confirmation message, **type Y**.

#### c) Installing OMIMSSC console extension for SCVMM

Ensure that you install the OMIMSSC console extension on the SCVMM site server.

- Double-click on the downloaded OMIMSSC\_SCVMM\_Console\_Extension.exe.
- Click Next on welcome page. On the License Agreement page, ensure to read through the all licensed agreement and follow the installation wizard.
- In the Destination Folder page, by default an installation folder is selected. To change the location, click Change and traverse to a new location, and then click Next
- o In Installation Completed Successfully, click Finish.

Following folders gets created after installing the console extension:

- **1.** Log this folder consists of console-related log information.
- 2. OMIMSSC\_UPDATE This folder consists of all the activities that are required for Cluster Aware Update (CAU). This folder has read and write permissions only for CAU operations. Windows Management Instrumentation (WMI) permissions are configured for this folder. For more information, see Microsoft documentation.
- o Launch the SVMM console as an Administrator user or Delegated Admin user.
- Click Settings and then click Console Add-ins to import the OMIMSSC Console Add-in into SCVMM console
- Click Import Console Add-in.

| Home                               |   |   |                  |         |   |
|------------------------------------|---|---|------------------|---------|---|
| Create User Role As Account Create | Import<br>Console Add-in<br>Import Back | PowerShell  PowerShell  Jobs  PRO  Window | Remove<br>Remove | Propert | ites                                    |
| Settings <                         |   |   |                  |         |   |
| General                            |   |   |                  |         |   |
| 🔥 User Roles                       | Name                                    |   | Author           | Ψ.      | Description                             |
| 🛃 Run As Accounts                  |   |   |                  |         | There are no items to show in this view |
| Servicing Windows                  |   |   |                  |         |   |
| 📫 Configuration Providers          |   |   |                  |         |   |
| a System Center Settings           |   |   |                  |         |   |
| Console Add-ins                    |   |   |                  |         |   |
| Microsoft Azure Site Recovery      |   |   |                  |         |   |
|                                    |   |   |                  |         |   |
|                                    |   |   |                  |         |   |
|                                    |   |   |                  |         |   |
| w VMs and Services                 |   |   |                  |         |   |
| Pabric                             |   |   |                  |         |   |
| 🧮 Library                          |   |   |                  |         |   |
| 📋 Jobs                             |   |   |                  |         |   |
| Settings                           |   |   |                  |         |   |

Figure 28: Import Console Add-in

 On Import Console Add-in Wizard, click Browse and select the .zip file from install directory e.g. C:\Program Files\OMIMSSC\VMM Console Extension Click Next, and click Finish.

| 🔚 Import Console Add-in     | Wizard  | ×                         |
|-----------------------------|---|---------------------------|
| Select an                   | Add-in  |                           |
| Select an Add-in<br>Summary | Select an add-in to import<br>After you select an add-in, you will be informed whether or not the files it contains are valid<br>no validation errors, the add-in will be installed as soon as you complete the wizard.<br>Add-in path: C:\Program Files\OMIMSSC\VMM Console Extension\OMIMSSC_VMM_Con<br>Add-in is valid | I. If there are<br>Browse |
|                             | Previous Next   | Cancel                    |

Figure 29: Import Console Add-in Wizard

**NOTE**: Ensure that the add-in is valid.

Troubleshoot: SCVMM crashes while importing OMIMSSC console extension

SC2016 VMM RTM build 4.0.1662.0 Administrator console may crash when importing OMIMSSC console extension.

As a workaround, upgrade SCVMM using the 4094925 KB article available at <u>support.microsoft.com/kb/4094925</u>, and then import the OMIMSSC console extension.

#### Troubleshoot: SC2012 VMM SP1 crashing during update

After upgrading to SC2012 VMM SP1, when importing OMIMSSC console extension to SC2012 VMM UR5 or later, the SCVMM console may crash. For information about this issue and resolving the issue, see issue 5 in the knowledge base URL: <a href="https://www.support.microsoft.com/kb/2785682">support.microsoft.com/kb/2785682</a>

As a workaround, update SCVMM irrespective of the version of the update rollup that is installed

#### iii. Perform the SCVMM console enrollment

Console Enrollment is the mode to establish communication between OMIMSSC appliance and SC console. Enroll the SCVMM site server to use OMIMSSC console extension on OMIMSSC admin portal.

Enrollment is common for both MECM and SCVMM console. To do so, perform the following operations on OMIMSSC Admin portal.

- Launch the OMIMSSC admin portal and login.
- o Click Settings, click Console Enrollment





- Click Enroll.
- Provide Name, Description, and Console FQDN in Enroll a Console page.
   NOTE: Provide fully qualified domain name (FQDN) of MECM site server in Console FQDN field.
- o Click Create New to create a Windows type credential profile to access MECM console.
  - Select the Credential Profile Type as Windows Credential Profile.
  - Provide Credential Profile Name and Credential Profile Description.
  - In Credentials, provide the Username and Password.
  - Provide the domain details in **Domain**.

| MC OpenManage Integra        | ation for Microsoft System Center - Admin  | Portal  | Adm | in : |
|------------------------------|--|---|-----|------|
| Console Enrollment           | Credential Profile   |   | ×   | *    |
| Displays the list of enrolle | Create the different types of credential profiles that y<br>and firmware update. Select the credential profile ty<br>Credential Profile Type | Select Credential Profile Type<br>Device Credential Profile<br>Windows Credential Profile<br>F1P Credential Profile<br>Proxy Credential Profile |     |      |
| Name                         | Credential Profile Name  | WCP   |     |      |
| There are no items availa    | Credential Profile Description   |   |     |      |
| <u> </u>                     | Credentials  |   |     |      |
| Cc                           | Username   | administrator   |     |      |
| Cr                           | Password   | •••••   |     |      |
|                              | Domain   | mydomain.com  |     |      |
|                              | L  |   | _   |      |
| - 1                          |  | Finish  |     |      |

Figure 31: Credential Profile Type

**NOTE**: Provide the domain name with Top Level Domain (TLD) details while creating the credential profile for console enrollment.

For example, if the domain name is **mydomain**, and the TLD is **com**, provide the domain name in credential profile as: **mydomain.com**.

• To verify the connections between OMIMSSC Appliance and Microsoft console, click **Test Connection**.

| DØLLE    | MC OpenManage In                      | tegration for Microsoft System Center                                   | - Admin Portal                                     | 🚨 Admin         |
|----------|---------------------------------------|---|--|-----------------|
| 0        | Console Enrollment                    | Enroll a Console  |  | ×               |
| •        | Displays the list of enrolle          | Register the MSSC console with the Appliance to a<br>PowerEdge devices. | configure hardware, deploy operating system, and n | nanage Dell EMC |
| ••<br>•• | Name     There are no items available | Name<br>Description   | SCCONSOLE  |                 |
|          |                                       | MSSC Console Details  |  |                 |
|          |                                       | Console FQDN  | scconsolefqdn.mydomain.com                         |                 |
| Ē        |                                       | Credentials   | WCP<br>Select Credential<br>WCP                    | ~               |
|          |                                       |   |  |                 |
|          |                                       |   | Test Connection                                    | nroll Cancel    |

Figure 32:Test Connection

 $\circ$  ~ To enroll the console after a successful test connection, click  $\mbox{Enroll}.$ 

|                                       | Enroll a Console   |  |
|---------------------------------------|--|--|
| Displays the list of enrolle          | i Test connection is succ                                      | essful X   |
| Name     There are no items available | Register the MSSC console with the Appli<br>PowerEdge devices. | ance to configure hardware, deploy operating system, and manage Dell EMC |
|                                       | Name   | SCCONSOLE  |
|                                       | Description  |  |
|                                       | MSSC Console Details   |  |
|                                       | Console FQDN   | scconsolefqdn.mydomain.com   |
|                                       | Credentials  | WCP V  |
|                                       |  | Create New   |
|                                       |  |  |
|                                       |  | Test Connection Enroll Cancel  |

Figure 33: Perform Enrollment

NOTE: Follow the same steps to enroll more than one SC console.

 After enrollment, OMIMSSC creates an Application Profiles in SCVMM with the name OMIMSSC SCVMM Console Extension Registration Profile. Ensure that this profile is not deleted, because you cannot perform any operations in OMIMSSC if this profile is deleted.

#### iv. Access OMIMSSC console in SCVMM

**NOTE**: SCVMM server Administrator user should not be an SCVMM service account. **NOTE**: If you are upgrading from SC2012 VMM SP1 to SC2012 VMM R2, then upgrade to Windows PowerShell 4.0.

- Launching the OMIMSSC Console Add-in in SCVMM
  - o In SCVMM console, select Fabric, and then select the All Hosts server groups.

NOTE: To launch OMIMSSC, you can select any host group that you have permissions to access.



Figure 34: Launch the OMIMSSC Console Add-in

• In **Home** ribbon, select **DELL EMC OMIMSSC** ribbon to open the OMIMSSC console.

| Home Folder  |  |
|--|--|
| Create<br>Create<br>Add<br>Add<br>Add<br>Add<br>Add<br>Add<br>Add<br>Add<br>Add<br>Ad  | W Delta  |
| Fabric   | inage Integration for Microsoft System Center Console Extension  |
| Servers  | LLEMC OpenManage Integration for Microsoft System Center   |
| All Infrastructure     All Library Servers     PXE Servers     Update Server     VCenter Server     VMM Server      Metworking | Overview Using OMIMSSC, you can capture server configurations, configure hardware components, upgrade firmware versions and deploy Windows and non-Windows OS perform other maintenance activities and view job status of all the jobs initiated through OMIMSSC. Discovered Devices O hosts |
| Ac Logical Networks     MAC Address Pools     Matching     Load Balancers     YIP Templates                                    | O unassigned servers O modular systems > View Hosts  |

#### Figure 35: Click on DELL EMC OMIMSSC Ribbon

Now you have completed the Setup and Configuration of OMIMSSC successfully. OMIMSSC is ready for managing the Dell PowerEdge Server and Modular Chassis.

#### Troubleshoot: Failure to connect to OMIMSSC console extension for SCVMM

After enrolling and installing OMIMSSC console extension in SCVMM environment, when you try to launch OMIMSSC, the following error is displayed: Connection to server failed.

As a workaround, perform the following steps:

- 1. Add the OMIMSSC Appliance IP and FQDN into local intranet in SCVMM console, when you are launching OMIMSSC.
- 2. Add the OMIMSSC Appliance IP and FQDN in Forward Lookup Zones and Reverse Lookup Zones in DNS.
- 3. For further details, check if there are any error messages in C:\ProgramData\VMMLogs\AdminConsole file.

#### Troubleshoot: Error accessing console extension after updating SCVMM R2

After applying Update Rollup for SC2012 R2 VMM, if you try to open the already installed OMIMSSC console, SCVMM displays an error message for security reasons, and you cannot access the OMIMSSC console.

As a workaround, do the following:

1. Delete the folder at default path: C:\Program Files\Microsoft System Center 2012 R2\Virtual Machine

Manager\Bin\AddInPipeline\AddIns\<username>

- 2. Restart SCVMM.
- Remove the console extension, and then import the console extension as mentioned in Importing OMIMSSC console extension for SCVMM section of Dell EMC OpenManage Integration for Microsoft System Center for System Center Configuration Manager and System Center Virtual Machine Manager Installation Guide.



### Conclusion

Deploying OMIMSSC for MECM and SCVMM in Windows Hyper-V is simple and easy process. The deployment model offers a quick way to begin managing assets in your data center from existing Microsoft Endpoint Configuration Manager (MECM) and Microsoft System Center Virtual Machine Manager (SCVMM) console.

For topics related to initial server discovery and management, see the OpenManage Integration for Microsoft System Center Version 7.2.1 for System Center Configuration Manager and System Center Virtual Machine Manager Unified User's Guide on the Dell Product Support.

### Technical support and resources

- Dell.com/support is focused on meeting customer needs with proven services and support.
- Dell EMC OpenManage Integrations for Microsoft System Center page
- Dell EMC OpenManage Integrations for Microsoft System Center Ecosystem portfolio
- Dell EMC OpenManage Integrations for Microsoft Product Brief
- Dell EMC Democenter ITD-0913 Dell EMC OpenManage Integrations for Microsoft Consoles
- SABA Sales L&E course: OpenManage Integration for Microsoft Systems Center <a href="http://gstcatalogue.aus.amer.dell.com/Catalog/CourseDetails/?code=ESGB5374">http://gstcatalogue.aus.amer.dell.com/Catalog/CourseDetails/?code=ESGB5374</a>